

## DS-2CD3956G2-IS(U) 5 MP AcuSense Fisheye Network Camera

# HEOP

**DarkFighter**



Empowered by deep learning algorithms, Hikvision AcuSense technology brings human or vehicle target classification alarms to front- and back-end devices. The system can greatly reduce false alarms generated by targets other than humans or vehicles, vastly improving alarm efficiency and effectiveness.

- Supports Hikvision Embedded Open Platform (HEOP) and importing third party applications
- Supports 1.5 TOPS computing power, 60 MB system memory, 400 MB smart RAM, and 2 GB eMMC storage for sharing resources
- Efficient H.265+ compression technology
- 180° fisheye view
- High quality imaging with 5 MP resolution
- Up to 4 live view display modes
- Clear imaging against strong back light due to 120 dB true WDR technology

## ▪ Specification

| Camera                  |   |
|-------------------------|---|
| Image Sensor            | 1/2.7" Progressive Scan CMOS  |
| Max. Resolution         | 2592 × 1944   |
| Min. Illumination       | Color: 0.017 Lux @ (F2.25, AGC ON), B/W: 0 Lux with IR  |
| Shutter Time            | 1/3 s to 1/100,000 s  |
| Day & Night             | IR cut filter   |
| Lens                    |   |
| Lens Type               | Fixed focal lens, 1.05 mm   |
| Focal Length & FOV      | 1.05 mm, horizontal FOV: 180°, vertical FOV: 180°, diagonal FOV: 180°   |
| Lens Mount              | M12   |
| Iris Type               | Fixed   |
| Aperture                | F2.25   |
| Depth of Field          | 0.1 m to ∞  |
| DORI                    |   |
| DORI                    | D: 21 m, O: 8 m, R: 4 m, I: 2 m   |
| Illuminator             |   |
| Supplement Light Type   | IR  |
| Supplement Light Range  | Up to 8 m   |
| Smart Supplement Light  | Yes   |
| IR Wavelength           | 850 nm  |
| HEOP                    |   |
| Open Resources          | Memory: 60 MB;<br>Smart RAM: 400 MB;<br>eMMC: 2 GB  |
| Computing Power         | 1.5 TOPS  |
| Deep Learning Structure | Caffe; PyTorch; TensorFlow  |
| Programming Language    | C; C++  |
| Video                   |   |
| Main Stream             | 50 Hz:<br>25 fps (2592 × 1944, 2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 Hz:<br>24 fps (2592 × 1944)<br>30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)   |
| Sub-Stream              | 50 Hz: 25 fps (640 × 480, 640 × 360)<br>60 Hz: 30 fps (640 × 480, 640 × 360)  |
| Third Stream            | 50 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1920 × 1080, 1280 × 720, 640 × 480, 640 × 360)  |
| Fourth Stream           | 50 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)<br>60 Hz: 10 fps (1280 × 720, 640 × 480, 640 × 360)  |
| Video Compression       | Main stream: H.265/H.264/H.264+/H.265+<br>Sub-stream: H.265/H.264/MJPEG<br>Third stream: H.265/H.264<br>Fourth stream: H.265/H.264/MJPEG<br>*Third stream and fourth stream are supported under certain settings. |
| Video Bit Rate          | 32 Kbps to 16 Mbps  |

|                             |  |
|-----------------------------|--|
| H.264 Type                  | Baseline Profile/Main Profile/High Profile   |
| H.265 Type                  | Main Profile   |
| Bit Rate Control            | CBR/VBR  |
| Scalable Video Coding (SVC) | H.264 and H.265 encoding   |
| Region of Interest (ROI)    | 5 fixed regions for main stream and sub-stream   |
| Target Cropping             | Yes  |
| <b>Fisheye Display</b>      |  |
| Mount Type                  | Support wall/table/ceiling mounting  |
| <b>Audio</b>                |  |
| Audio Compression           | G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC   |
| Audio Bit Rate              | 64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC)  |
| Audio Sampling Rate         | 8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz  |
| Environment Noise Filtering | Yes  |
| <b>Network</b>              |  |
| Protocols                   | TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, PPPoE, SFTP, ARP, SNMP  |
| Simultaneous Live View      | Up to 6 channels   |
| API                         | Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP   |
| User/Host                   | Up to 32 users. 3 user levels: administrator, operator and user  |
| Security                    | Password protection, complicated password, HTTPS encryption, IP address filter, Security Audit Log, basic and digest authentication for HTTP/HTTPS, TLS 1.2, WSSE and digest authentication for Open Network Video Interface, memory card encryption, SFTP encryption, SRTP encryption |
| Network Storage             | NAS (NFS, SMB/CIFS), auto network replenishment (ANR)<br>Together with high-end Hikvision memory card, memory card encryption and health detection are supported.  |
| Client                      | iVMS-4200, Hik-Connect, Hik-Central  |
| Web Browser                 | Plug-in required live view: IE 10, IE 11<br>Plug-in free live view : Chrome 57.0+, Firefox 52.0+<br>Local service: Chrome 57.0+, Firefox 52.0+   |
| <b>Image</b>                |  |
| Image Parameters Switch     | Yes  |
| Image Settings              | Rotate mode, saturation, brightness, contrast, sharpness, gain, white balance adjustable by client software or web browser   |
| Day/Night Switch            | Day, Night, Auto, Schedule   |
| Wide Dynamic Range (WDR)    | 120 dB   |
| Image Enhancement           | BLC, HLC, 3D DNR   |
| SNR                         | ≥ 52 dB  |
| <b>Interface</b>            |  |
| Ethernet Interface          | 1 RJ45 10 M/100 M self-adaptive Ethernet port  |
| On-Board Storage            | Built-in memory card slot, support microSD/microSDHC/microSDXC/TF card, up to 256 GB   |
| Built-in Microphone         | -U: Yes  |

|                                  |   |
|----------------------------------|---|
| Audio                            | 1 input(s) (line in), four-core terminal block, max. input amplitude: 3.3 Vpp, input impedance: 4.7 K $\Omega$ , interface type: non-equilibrium,<br>1 output(s) (line out), four-core terminal block, max. output amplitude: 3.3 Vpp, output impedance: 100 $\Omega$ , interface type: non-equilibrium   |
| Alarm                            | 1 input, 1 output (max. 12 VDC, 30 mA)  |
| RS-485                           | 1 RS-485 (Half duplex, HIKVISION, Pelco-P, Pelco-D, self-adaptive)  |
| Reset Key                        | Yes   |
| <b>Event</b>                     |   |
| Basic Event                      | Video tampering alarm, exception  |
| Smart Event                      | Line crossing detection, intrusion detection, region entrance detection, region exiting detection (support alarm triggered by specified target types (human and vehicle))<br>Unattended baggage detection, object removal detection, scene change detection, audio exception detection  |
| Linkage                          | Upload to NAS/memory card/FTP, notify surveillance center, send email, trigger recording, trigger capture, trigger alarm output, audible warning  |
| <b>Deep Learning Function</b>    |   |
| Face Capture                     | Yes   |
| <b>General</b>                   |   |
| Power                            | 12 VDC $\pm$ 25%, 0.50 A, max. 6 W, $\varnothing$ 5.5 mm coaxial power plug,<br>PoE: 802.3af, Class 3, 36 V to 57 V, 0.20 A to 0.13 A, max. 7.5 W   |
| Dimension                        | $\varnothing$ 119.9 mm $\times$ 41.2 mm ( $\varnothing$ 4.7" $\times$ 1.6")   |
| Package Dimension                | 150 mm $\times$ 125 mm $\times$ 99 mm (5.9" $\times$ 4.9" $\times$ 3.9")  |
| Weight                           | Approx. 320 g (0.7 lb.)   |
| With Package Weight              | Approx. 510 g (1.1 lb.)   |
| Storage Conditions               | -10 $^{\circ}$ C to 50 $^{\circ}$ C (-14 $^{\circ}$ F to 122 $^{\circ}$ F). Humidity 95% or less (non-condensing)   |
| General Function                 | Anti-banding, heartbeat, mirror, privacy mask, flash log, password reset via email, pixel counter   |
| Startup and Operating Conditions | -10 $^{\circ}$ C to 50 $^{\circ}$ C (-14 $^{\circ}$ F to 122 $^{\circ}$ F). Humidity 95% or less (non-condensing)   |
| Language                         | 33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian |
| <b>Approval</b>                  |   |
| EMC                              | FCC: 47 CFR Part 15, Subpart B,<br>CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014,<br>RCM: AS/NZS CISPR 32: 2015   |
| Safety                           | UL: UL 62368-1,<br>CB: IEC 62368-1: 2014+A11,<br>CE-LVD: EN 62368-1: 2014/A11: 2017   |
| Environment                      | CE-RoHS: 2011/65/EU,<br>WEEE: 2012/19/EU,<br>Reach: Regulation (EC) No 1907/2006  |

### ▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

This model has NO SPECIFIC PROTECTION.

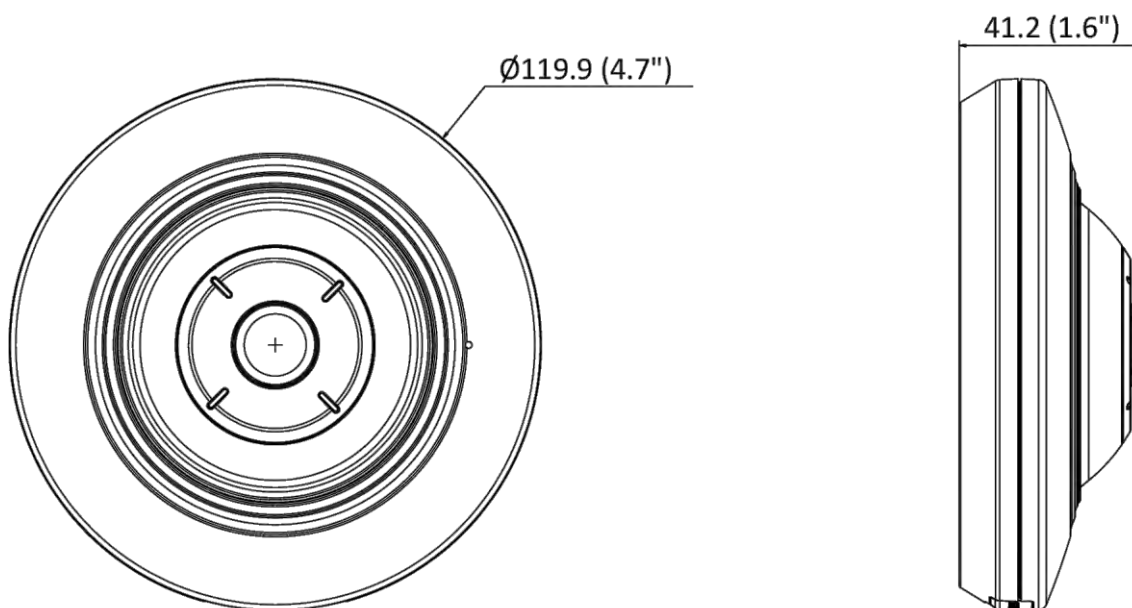
| Level                  | Description  |
|------------------------|--|
| Top-level protection   | Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.   |
| Moderate protection    | Hikvision products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain. |
| No specific protection | Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.  |

### ▪ Available Model

DS-2CD3956G2-IS (1.05 mm)

DS-2CD3956G2-ISU (1.05 mm)







### ▪ Dimension



Unit: mm (inch)

▪ **Accessory**

▪ **Optional**

| <b>DS-1297ZJ-M</b><br><b>Pendant Mount</b>   | <b>DS-1294ZJ</b><br><b>Wal Mount</b>  | <b>DS-1281ZJ-DM27</b><br><b>Inclined Ceiling</b><br><b>Junction Box</b>           | <b>DS-1299ZJ</b><br><b>Pendant Mount</b>  | <b>DS-1297ZJ</b><br><b>Pendant Mount</b>  |
|--|---|---|---|---|
|   |  |  |  |  |
| <b>DS-1297ZJ-ES</b><br><b>Pendant Mount</b>  |   |   |   |   |
|  |   |   |   |   |

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